Test Report

Verified code:930040

Report No.: E20211115129001-7

Customer:	Comba Telecom Network Systems Limited
Address:	Flat/Rm 10, 3/F, Bio-Informatics Ctr, 2 Science Park West Avenue, HK Science Park, Pak Shek Kok, N.T. Hong Kong
Sample Name:	Public Safety UHF DAS Remote Unit
Sample Model:	RH45V2F-B-48/ RH45V2F-B-AC
Receive Sample Date:	2021-11-22
Test Date:	2021-11-22 ~ 2021-12-15
Reference Document:	FCC PART 2--- FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS FCC PART 90-- PRIVATE LAND MOBILE RADIO SERVICES
Test Result:	Pass
FCC ID:	PX8RH45V2F-B

Prepared By: Yansha Reviewed By: Zhao Zethan Approved By: Liang

GUANGZHOU GRG METROLOGY & TEST CO., LTD

Issued Date: 2022-01-20

Statement

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2. The sample information is provided by the client and responsible for its authenticity; The content of the report is only valid for the samples sent this time.

3. When there are reports in both Chinese and English, the Chinese version will prevail when the language problems are inconsistent.

4. If there is any objection concerning the report, please inform us within 15 days from the date of receiving the report.

5. Without the agreement of the laboratory, the client is not authorized to use the test results for unapproved propaganda.

6. The test report without CMA approval mark is only used for scientific research, teaching, internal quality control and other purposes.

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———— The following blanks ————

1. Applicant information

1.1. Client information

Name:	Comba Telecom Network Systems Limited
Address:	Flat/Rm 10, 3/F, Bio-Informatics Ctr, 2 Science Park West Avenue,HK Science Park, Pak Shek Kok, N.T. Hong Kong

1.2. Manufacturer and Factory

Name:	Comba Network Systems Company Limited
Address:	No.10 Shenzhou Road, Guangzhou Science City, Guangzhou 510663, Guangdong, P.R. China
Factory:	Comba Telecom Technology (Guangzhou) Ltd.
Address:	No.6 Jinbi Road, Economics and Technology Development District, Guangzhou Guangdong China

2. General description of EUT

2.1. Basic description of EUT

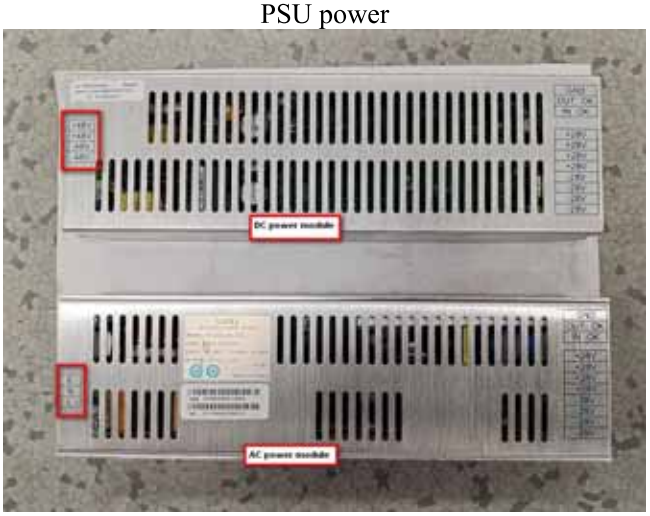
Product Name:	Public Safety UHF DAS Remote Unit
Product Model:	RH45V2F-B-48
Adding Model:	RH45V2F-B-AC
Trade Name:	Comba
Power Supply:	Typical DC input power: DC -48V and Typical output power: DC -28V Or Typical AC input power: AC 110V, 50/60Hz and Typical output power: DC -28V
Power cord:	AC power cord (4m)
Frequency Band:	Downlink: 450MHz ~ 512MHz, Uplink: 450MHz ~ 512MHz
Nominal Output Power:	Master Unit and System: Downlink: 36dBm; Uplink: 30dBm
Nominal Gain:	Master Unit: Downlink: 102dB, Uplink: 102dB System Gain: Downlink: 105dB, Uplink: 102dB
EUT Operating Temperature:	-33°C to +55°C
Operating Humidity:	5% to 95%
Antenna Type:	N/A

NOTE 1: The device is a broadband device, which belongs to Class B signal booster.

NOTE 2: The device provides two PSU power supply modes by manufacturer's statement, one Typical is

DC-48V input, the other Typical is AC 110V, 50Hz / 60Hz input. Except for the different PSU power supply mode input and arrester, the power supply output to the device is the same, all other electrical parameters have the same circuit schematic, components, cirtical components and also the same construction. please see the following the differences below:

PSU power



Arrester

NOTE 3: The device is an outdoor device, the device does not provide antenna by Manufacturer's statement, but it is required that the Antenna gain shall not exceed 0 dBi for Downlink and Uplink when the project is used by Manufacturer's statement.

NOTE 4: In this report, the main model has been tested, while the additional model has tested Mean power and amplifier/booster gain, conducted spurious emissions and radiated spurious emissions.

NOTE 5: According to the device signal flow, the device supports independent uplink input and downlink output. Therefore, this report provides system downlink test.

NOTE 6: According to the system configuration provided by the manufacturer, the minimum configuration of the system test is 1 MU, 1 FOU and 1 RU.

MU means Master Unit; FOU means Optical Expansion Unit; RU means Remote Unit;

———— The following blanks ————

2.2. Test signal modulation description

According to FCC PART 2.202 (g), Table of necessary bandwidths follow:

2.2.1. Analog signals

Emission Designator	Description	Modulation type	M (modulaition Freq, kHz)	R (Rate, baud)	D (Deviation, kHz)	K (numeric constant)	S (Symbols)	Bandwidth Calculation	Necessary Bandwidth
4K00F1E	Narrowband Analog FM Voice	FM	1.0	--	1	1.0	--	Bn=2M+2DK	4.0
11K0F3E	Narrowband Analog FM Voice	FM	3.0	--	2.5	1.0	--	Bn=2M+2DK	11.0
16K0F3E	Wideband Analog FM Voice	FM	3.0	--	5.0	1.0	--	Bn=2M+2DK	16.0

2.2.2. Digital signals

Emission Designator	Description	Modulation type	M (modulaition Freq, kHz)	R (Rate, baud)	D (Deviation, kHz)	K (numeric constant)	S (Symbols)	Bandwidth Calculation	Necessary Bandwidth
8K10F1E	P25 Phase I C4FM Voice	4FSK	--	9600	1.8	0.916	4	$Bn=(R/\log_2 S)+2DK$	8.1
8K10F1D	P25 Phase I C4FM Data	4FSK	--	9600	1.8	0.916	4		8.1
8K10F1W	P25 Phase II H-CPM Voice/Data	4FSK	--	9600	1.8	0.916	4		8.1
9K80F1E	P25 Phase II H-DQPSK Voice	QPSK	--	12000	--	0.817	4	$Bn=2RK/\log_2 S$	9.8
9K80F1D	P25 Phase II H-DQPSK Data	QPSK	--	12000	--	0.817	4		9.8

NOTE: In the above test signal modes, the typical signal and the worst mode signal are used as representatives in this test. The specific test signal types are as follows:

Emission Designator	Description	Modulation type	M (modulaition Freq, kHz)	R (Rate, baud)	D (Deviation, kHz)	K (numeric constant)	S (Symbols)	Bandwidth Calculation	Necessary Bandwidth
4K00F1E	Narrowband Analog FM Voice	FM	1.0	--	1	1.0	--	Bn=2M+2DK	4.0
11K0F3E	Narrowband Analog FM Voice	FM	3.0	--	2.5	1.0	--	Bn=2M+2DK	11.0
16K0F3E	Wideband Analog FM Voice	FM	3.0	--	5.0	1.0	--	Bn=2M+2DK	16.0
8K10F1D	P25 Phase I C4FM Data	4FSK	--	9600	1.8	0.916	4	$Bn=(R/\log_2 S)+2DK$	8.1
9K80F1D	P25 Phase II H-DQPSK Data	QPSK	--	12000	--	0.817	4	$Bn=2RK/\log_2 S$	9.8

2.3. Signal Booster control process

2.3.1. System block

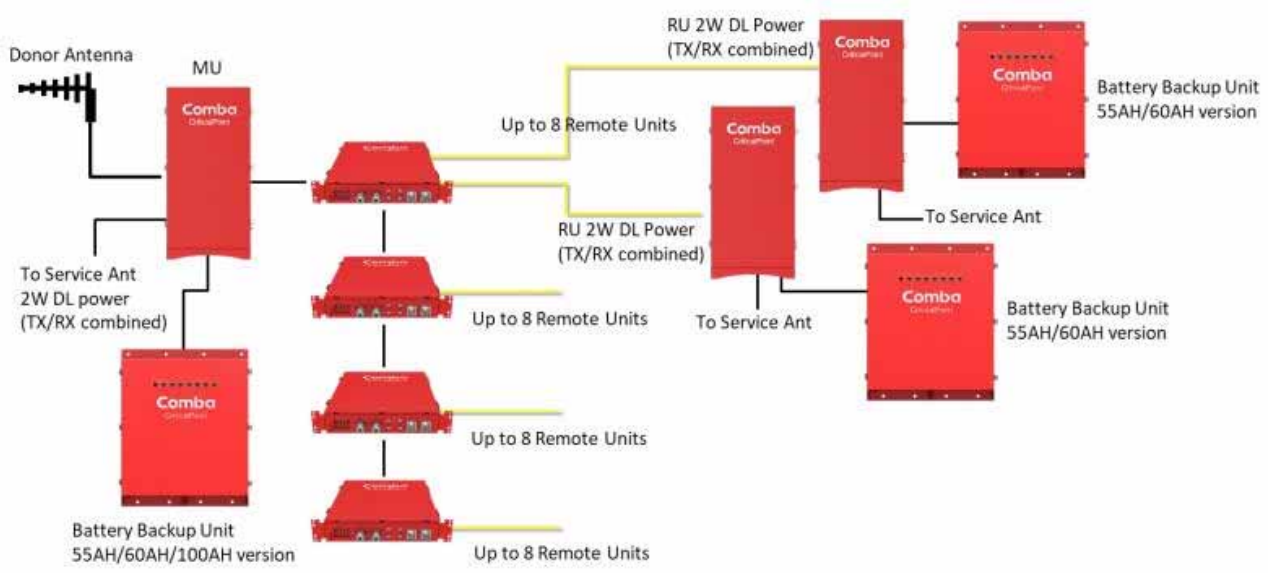


Figure 2-1 System block diagram

2.3.2. Signal control process

In the downlink path, the BTS signals are received by the donor antenna that is connected to the Master Unit. After the duplexer, the signals are sent to the LNA module for pre-amplification and to the digital RF integrated module for digital filtering and frequency conversion. Then the DL signals will be filtered via the duplexer, and then sent to the Expansion Unit(s), the RF signal is converted into an optical signal and then distributed to the Remote Unit(s) to over optical fiber. After amplification by the RU, the signals are transmitted at the MT port to the service antenna infrastructure.

In the uplink path, the mobile signals are received by the service antenna. After passing through the MT port duplexer, the signals are sent to the LNA and the integrated module for digital filtering, then the UL signals will be sent to the Expansion Unit(s), the RF signal is converted into an optical signal and then distributed to the Master Unit for filtering by the duplexer and power amplification. Finally, the uplink signals are sent to the donor antenna for transmission back to the BTS.

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2.4. Description of Master Unit, Optical Expansion Unit, and Remote Unit connection port

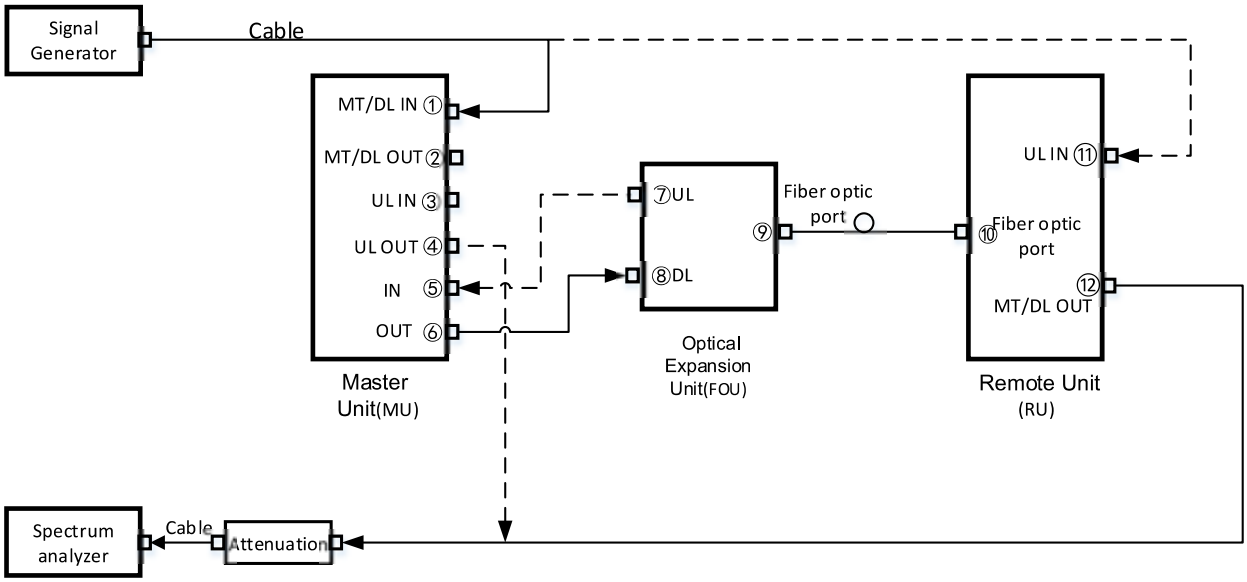

Figure1 MU, FOU and RU system test connection diagram

NOTE 1: Both port ② and port ③ of MU device need to power loads.

NOTE 2: The solid line means downlink and the dotted line means uplink.

NOTE 3: If it is both a single device and a system, the single machine and the system can be combined together.

3. Related documents

FCC PART 2 (2020)
FCC PART 90 (2020)
KDB 935210 D05 Indus Booster Basic Meas v01r04
KDB 935210 D02 Signal Boosters Certification v04r02
KDB 971168 D01 Power Meas License Digital Systems v03r01
ANSI/TIA 603-E-2016
ANSI/TIA-102.CAAA-E-2016
ANSI C63.26-2015

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4. Test result summary

Test Item	Test Requirements	Test Method	Reported	N/A
Test Frequency	KDB 935210 D02 APPENDIX D/Table D.3, FCC PART 2.1057, ANSI C63.26-2015 Clause 5.1.2	/	Reported only	
Input Signals	KDB 935210 D05 clause 4.1	/	Reported only	
AGC Threshold	KDB 935210 D05 clause 4.2	/	Reported only	
Out of Band Rejection	KDB 935210 D05 clause 4.3 FCC PART 90.219 (a) FCC PART 90.219 (d)((7)	KDB 935210 D05 clause 4.3	☒	
Input VS output Comparison	KDB 935210 D05 clause 4.4 FCC PART 2.1049(c) FCC PART 90.219 (e)(4)(ii)	KDB 935210 D05 clause 4.4	☒	
Mean power and amplifier/booster gain	KDB 935210 D05 clause 4.5 FCC PART 90.219 (e)(1)	KDB 935210 D05 clause 4.5	☒	
Noise Figure	KDB 935210 D05 clause 4.6 FCC PART 90.219 (e)(2)	KDB 935210 D05 clause 4.6	☒	
Out-of-band/out-of-block emissions	KDB 935210 D05 clause 4.7.2 FCC PART 2.1051 FCC PART 90.219 (d)(6)(i) FCC PART 90.219 (e)(3)	KDB 935210 D05 clause 4.7.2	☒	
Conducted spurious emissions	KDB 935210 D05 clause 4.7.3 FCC PART 2.1051 FCC PART 90.219 (e)(3)	KDB 935210 D05 clause 4.7.3	☒	
Frequency stability	KDB 935210 D05 clause 4.8 FCC PART 2 1055(a)(2) FCC PART 90.213 FCC PART 90.219 (e)(4)(i)	KDB 935210 D05/4.8 FCC PART 2 1055(b)	☒	
Radiated spurious emissions	KDB 935210 D05 clause 4.9 FCC PART 2.1053 FCC PART 90.219 (e)(3)	KDB 935210 D05 clause 4.9 ANSIC63.26-2015/5.5 ANSI/TIA 603-E-2016 ANSI/TIA-102.CAAA-E-2016	☒	

NOTE: ☒ mean that test needs to be performed.

5. About Signal Booster

According to the basic information of EUT (the device is a broadband device) and FCC part 90.219 (a) and KDB 935210 D02 APPENDIX A3.1 rules, this EUT belongs to PART 90 class B

Industrial signal booster and it is a non SMR.

5.1. KDB 935210 D02 APPENDIX A3.1

A.3.1 Signal Booster (Section 90.219)

A **Signal Booster (Section 90.219)** is a device or system that automatically receives, amplifies, and retransmits signals from wireless stations into and out of building interiors, tunnels, shielded outdoor areas and other locations where these signals would otherwise be too weak for reliable communications. Signal booster systems may contain both Class A and Class B signal boosters as components. [Section 90.219(a)]

All **Section 90.219 boosters** are a type of Industrial Signal Booster, and are classified as either **Class A boosters** (narrowband) or **Class B boosters** (wideband).[R11] [*Order*, ¶ 15]

Note also that Consumer Signal Boosters are not defined for PLMRS or PSRS because licensees are considered to operate private services. Part 90 PLMR licensees typically obtain authorizations for individual narrowband channels or groups of channels to satisfy their own communication needs. Moreover, many Part 90 channels are interleaved and a licensee's channels may not be adjacent to one another, which presents unique considerations for signal boosters used with Part 90 PLMR services. [*Order*, ¶ 144]

a) Class A signal booster: A signal booster designed to retransmit signals on one or more specific channels. A signal booster is deemed to be a Class A signal booster if none of its passbands exceed 75 kHz. [Section 90.219(a)]

b) Class B signal booster: A signal booster designed to retransmit any signals within a wide frequency band. A signal booster is deemed to be a Class B signal booster if it has a passband that exceeds 75 kHz. [Section 90.219(a)]

Class B signal boosters may be deployed only at fixed locations; mobile operation of Class B signal boosters is prohibited (after November 1, 2014). [Section 90.219(d)(4)]

5.2. FCC part 90.219 (a) Definitions

§90.219 Use of signal boosters.

This section contains technical and operational rules allowing the use of signal boosters in the Private Land Mobile Radio Services (PLMRS). Rules for signal booster operation in the Commercial Mobile Radio Services under part 90 are found in §20.21 of this chapter.

https://www.ecfr.gov/cgi-bin/text-idx?SID=2097cbedce8abb94d012e95530a44e05&mc=true&node=pt47.5.90&rgn=div5

2020/6/15 Electronic Code of Federal Regulations (eCFR)

(a) *Definitions.* The definitions in this paragraph apply only to the rules in this section.

Class A signal booster. A signal booster designed to retransmit signals on one or more specific channels. A signal booster is deemed to be a Class A signal booster if none of its passbands exceed 75 kHz.

Class B signal booster. A signal booster designed to retransmit any signals within a wide frequency band. A signal booster is deemed to be a Class B signal booster if it has a passband that exceeds 75 kHz.

6. Test modes

Test modes	TX mode: For MU device, “DT/DL IN” port of Master Unit (MU) is connected to the signal generator, “MT/DL” port is connected to the spectrum analyzer through attenuator, and the power of the EUT is turned on and signal is sent. while the system test, “MT / DL” port of MU is connected to the signal generator, and the “OUT1” port of MU is connected to "DL1" port of FOU through cable, then connected to RU through optical fiber from the optical port of FOU, output from “MT/DL” port of RU, and connected to the attenuator to the spectrum analyzer through cable, and the power of the EUT is turned on and signal is sent. RX mode: “UL IN” port of Master Unit (MU) is connected to the signal generator, “UL OUT” port is connected to the spectrum analyzer through attenuator, and the power of the EUT is turned on and signal is sent, while the system test, the Uplink signal is input from the "UL IN" port of the Remote Unit (RU), transmitted through the optical fiber to the Optical Expansion Unit (FOU), output from the port "UL1" to the "IN1" of Master Unit (MU), and the signal is output from the Master Unit(MU) "UL OUT" port

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7. Laboratory and Accreditations

7.1. Laboratory

The tests & measurements refer to this report were performed by Shenzhen EMC Laboratory of Guangzhou GRG Metrology & Test Co,. Ltd.

Testing Certificate Number: 2861.01

Add. : No.1301 Guanguang Road Xinlan Community, Guanlan Street, Longhua District Shenzhen, 518110, People's Republic of China.

P.C. : 518110

Tel : 0755-61180008

Fax : 0755-61180008

7.2. Accreditations

Our laboratories are accredited and approved by the following approval agencies according to GB/T 27025(ISO/IEC 17025:2017)

USA A2LA(Certificate#: 2861.01)

The measuring facility of laboratories has been authorized or registered by the following approval agencies.

Canada Industry Canada

USA FCC

Copies of granted accreditation certificates are available for downloading from our web site, http://www.grgtest.com

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8. Measurements uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement		Frequency	Uncertainty
Radiated Emission	Horizontal	30MHz～1000MHz	4.3dB
	Horizontal	1GHz～18GHz	5.6dB
	Vertical	30MHz～1000MHz	4.3dB
	Vertical	1GHz～18GHz	5.6dB

Measurement	Uncertainty
RF frequency	6×10^{-6}
RF power conducted	0.78dB
Occupied channel bandwidth	0.4%
Unwanted emission, conducted	0.68dB
Humidity	6%
Temperature	2℃

Note: This uncertainty represents an expanded uncertainty factor of k=2.

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9. Equipments used during test

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Signal Generator	Agilent	E4438C	MY49072994	2022-05-15
Signal Generator	Agilent	E4432B	MY43350133	2022-05-07
Vector Signal Generator	R&S	SMBV 100A	260996	2022-01-21
Signal Generator	R&S	SMB 100A	109290	2022-01-11
Spectrum analyzer	R&S	FSV30	104381	2022-02-21
Spectrum analyzer	R&S	FSV30	103264	2021-11-23
Spectrum analyzer	Agilent	N9020B	MY59050667	2022-02-21
Spectrum analyzer	Agilent	N9020A	MY51285942	2022-05-15
Power splitter	WEINSCHEL	1580	SL767	2022-03-02
SNS Series Noise Source	Agilent	346B	MY44422241	2022-05-15
NFA Series Noise Figure Analyzer	Agilent	N8973A	MY45071191	2022-07-21
DC power supply	YISheng	YSRLD-605	2015052010	2022-09-03
Frequency meter	Suin	SS7300	6E5042026	2022-04-23
Voltage regulator	Qingdaoqingzhi	TDGC2J-5	GRGTAG2013026	/
Digital multimeter	Fluke	F15B+	44750292WS	2022-01-13
Isolator	CIL	M1005L001MN00 400~500	100680905	/
Isolator	CIL	M1005L001MN00 400~500	100680906	/
Attenuation	Shanghaihua xiang	DTS50-30dB-4G	54451395	/
Attenuation	Shanghaihua xiang	DTS50-40dB-4G	11042234	/
Temp & Humidity chamber	Deli	/	013545	2022-06-07
Radiated emissions				
Receiver	R&S	ESU26	100526	2022-08-20
Receiver	R&S	ESU40	100106	2022-10-10

Bi-log Antenna	Schwarzbeck	VULB 9160	9160-3402	2022-10-27
Bi-Log Antenna	ETS-lindgren	3142C	75971	2022-12-14
Horn Antenna	Schwarzbeck	BBHA9120	I00309	2022-09-11
Horn Antenna	ETS	3117 C	00075824	2022-01-21
Broadband Amplifiers	Schwarzbeck	BBV9718	00246	2022-08-16
Semi-anechoic chamber	ETS-lindgren	966(RFD-F/A-100)	3730	2022-09-19

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10. Radio technical requirement specification

10.1. Test Frequencies

Test requirement: KDB 935210 D02 APPENDIX D/Table D.3
FCC PART 2.1057
ANSI C63.26-2015 Clause 5.1.2

10.1.1. Requirements

According to FCC regulations, FCC part 2.1057, ANSI C63.26-2015 clause 5.1.2 and KDB 935210 D02 Appendix D / table D.3 have relevant frequency band requirements.

(1) FCC PART 2.1057

§2.1057 Frequency spectrum to be investigated.

(a) In all of the measurements set forth in §§2.1051 and 2.1053, the spectrum shall be investigated from the lowest radio frequency signal generated in the equipment, without going below 9 kHz, up to at least the frequency shown below:

(1) If the equipment operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

(2) If the equipment operates at or above 10 GHz and below 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz, whichever is lower.

(3) If the equipment operates at or above 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 200 GHz, whichever is lower.

(b) Particular attention should be paid to harmonics and subharmonics of the carrier frequency as well as to those frequencies removed from the carrier by multiples of the oscillator frequency. Radiation at the frequencies of multiplier stages should also be checked.

(c) The amplitude of spurious emissions which are attenuated more than 20 dB below the permissible value need not be reported.

(d) Unless otherwise specified, measurements above 40 GHz shall be performed using a minimum resolution bandwidth of 1 MHz.

———— The following blanks ————

(2) ANSI C63.26-2015 Clause 5.1.2

5.1.2 Number of fundamental frequencies to be tested in EUT transmit band

5.1.2.1 General requirement

Measurements of transmitters shall be performed and, if required, reported for each frequency band in which the EUT can be operated with the device transmitting at the number of frequencies in each band specified in Table 2.

[24] See 47 CFR 2.1057.

Table 2—Number of frequencies to be tested

Frequency range over which EUT operates	Number of frequencies	Location in frequency range of operation
1 MHz or less	1	Middle
1 MHz to 10 MHz	2	1 near top and 1 near bottom
More than 10 MHz	3	1 near top, 1 near middle, and 1 near bottom

(3) KDB 935210 D02 APPENDIX D/Table D.3

Table D.3 – Various Part 90 PLMRS band allocations, rule parts/sections, and service types for Section 90.219 purposes (for info only – see rules for details, also KDB Publication 634817 [R14])

Fl. (MHz)	–	Fl. (MHz)	Rule(s)	Misc. Notes
150	–	150.05	Federal (non-FCC)	
150.05	–	150.8	90.265	
150.8	–	162.0125	90	
162.0125	–	173.2	90.265	
173.2	–	173.4	90	
173.4	–	174	Federal (non-FCC)	
406.1	–	420	90.265	
420	–	421	ULS presently shows no licensees for 420-420.9 MHz	
421	–	430	90	
430	–	450	Not available under 90 Subparts B, C land mobile service	
450	–	470	90 (selected bands)	
470	–	512	90	
746	–	757	27.5(b)(3) Block C; 90 not available	
757	–	758	27.5(b)(1) Block A; 90 not available	
758	–	768	90-R, Public Safety (PS) Broadband (FirstNet)	B9B (LTE)
768	–	769	PS Guardband	
769	–	775	PS Narrowband	
775	–	776	27.5(b)(2) Block B; 90 not available	
776	–	787	27.5(b)(3) Block C; 90 not available	
787	–	788	27.5(b)(1) Block A; 90 not available	
788	–	798	90-R, Public Safety (PS) Broadband (FirstNet)	B9B (LTE)
798	–	799	PS Guardband	
799	–	805	PS Narrowband	
805	–	806	27.5(b)(2) Block B; 90 not available	
806	–	809	90 NPSPAC (PS) [90.617(a)(1)]	B9B/B9A

The EUT will utilize bands:450MHz ~ 512MHz

10.1.2. Result

This project is only reported and checked, the frequency range of this EUT meets the above regulatory requirements.

———— The following blanks ————

10.2. Input Signals

Test requirement: KDB 935210 D05 clause 4.1

10.2.1. Requirements

According to FCC regulations, KDB 935210 D05clause 4.1 have relevant input signals requirements.

The procedures in this clause are specific to EUTs intended for operating in the Private Land Mobile Radio Services (PLMRS) and Public Safety Radio Services (PSRS)[5], which are governed under the provisions and requirements of the Part 90 rules (i.e., Section 90.219 applies).

Table 1 depicts signal types associated with PLMRS operations, which are to be considered as test signals to be used in performing compliance testing on PLMRS amplifiers, repeaters, and industrial boosters. Not all of the procedures in this clause will require using each of the signals listed in Table 1, because for

[5] As explained in § 90.16, Public Safety Radio Services is part of the Public Safety Radio Pool, also known as the Public Safety Pool.

many EUTs a CW tone can adequately model the narrowband signals typically encountered within these services. For EUTs supporting digitally modulated signals, the intended operating signal types should be tested (e.g., P25 Phase 1, P25 Phase 2, TETRA, etc.), especially for PSRS devices. Devices intended for use in 700 MHz Public Safety Broadband spectrum shall be tested using a representative band-limited AWGN signal (99 % OBW of 4.1 MHz) or the applicable signal type (e.g., LTE).

Table 1—Test signals for PLMRS devices

Emission Designator	Modulation	Occupied Bandwidth	Channel Bandwidth	Audio Frequency
16K0F3E	FM	16 kHz	25 kHz	1 kHz
11K3F3E	FM	11.3 kHz	12.5 kHz	1 kHz
4K00F1E	FM	4 kHz	6.25 kHz	1 kHz
N/A	CW	N/A	N/A	N/A

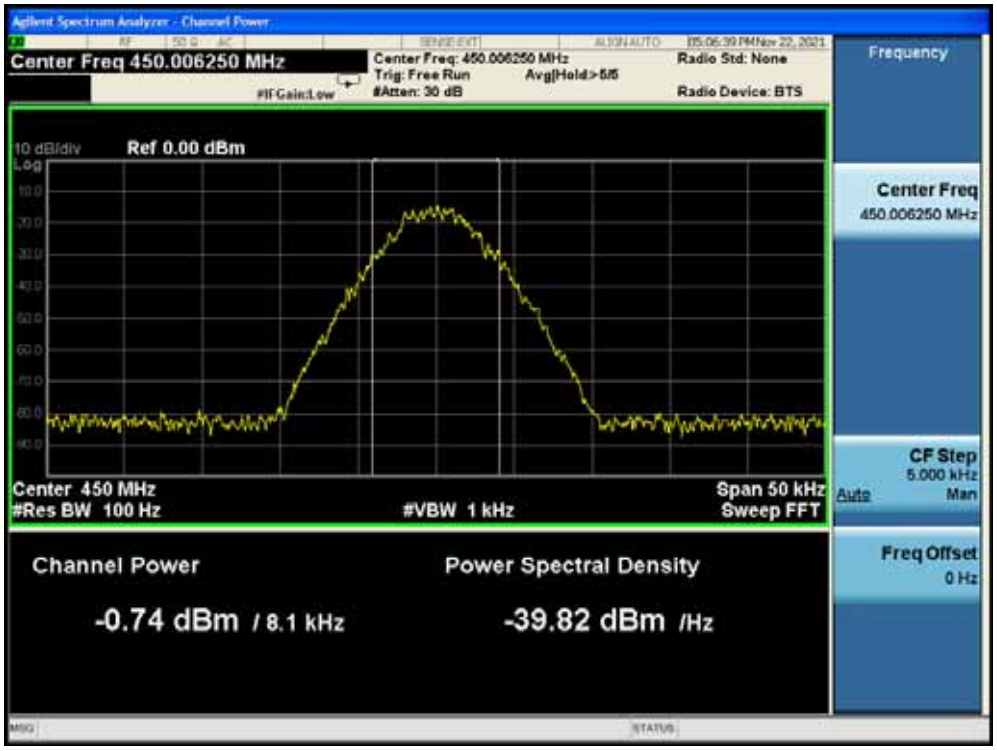
10.2.2. Result

This project is only reported and checked.

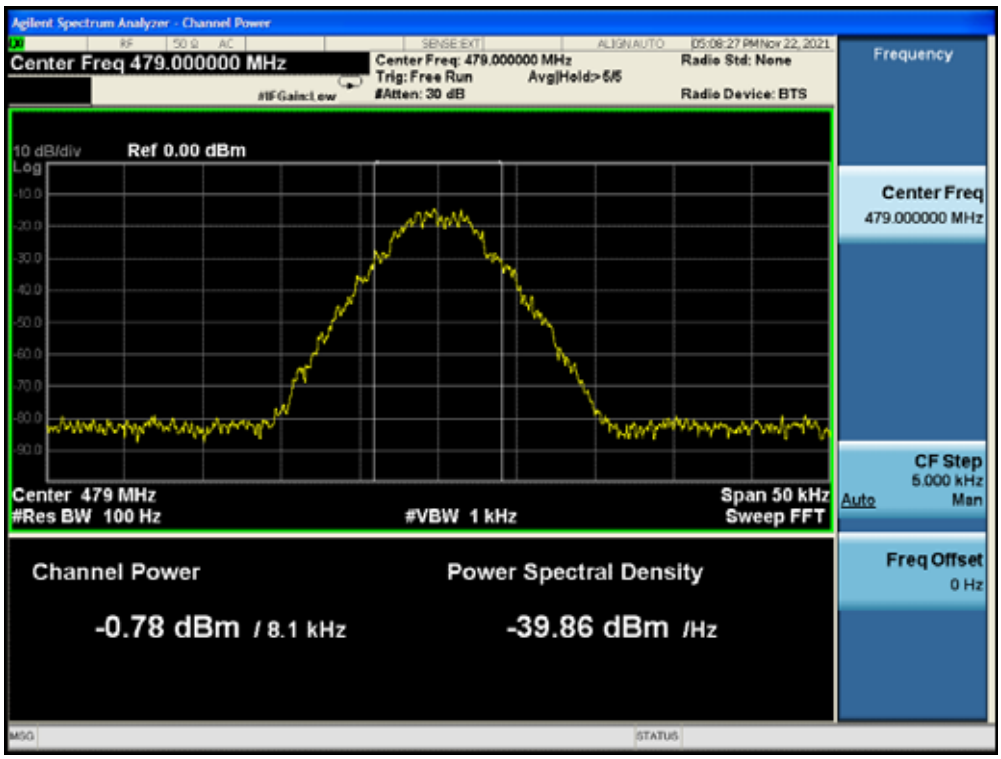
10.2.3. Input Signals screenshot

10.2.3.1.P25 Phase I(C4FM) mode

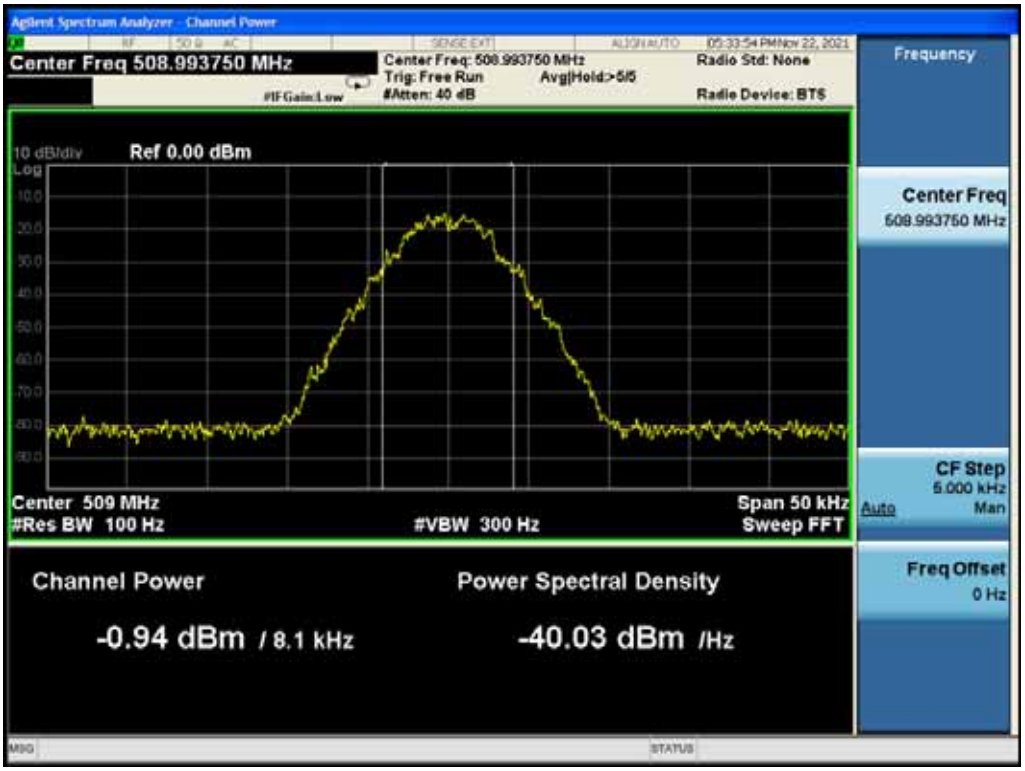
10.2.3.1.1. Downlink



Low Frequency: 450.00625MHz

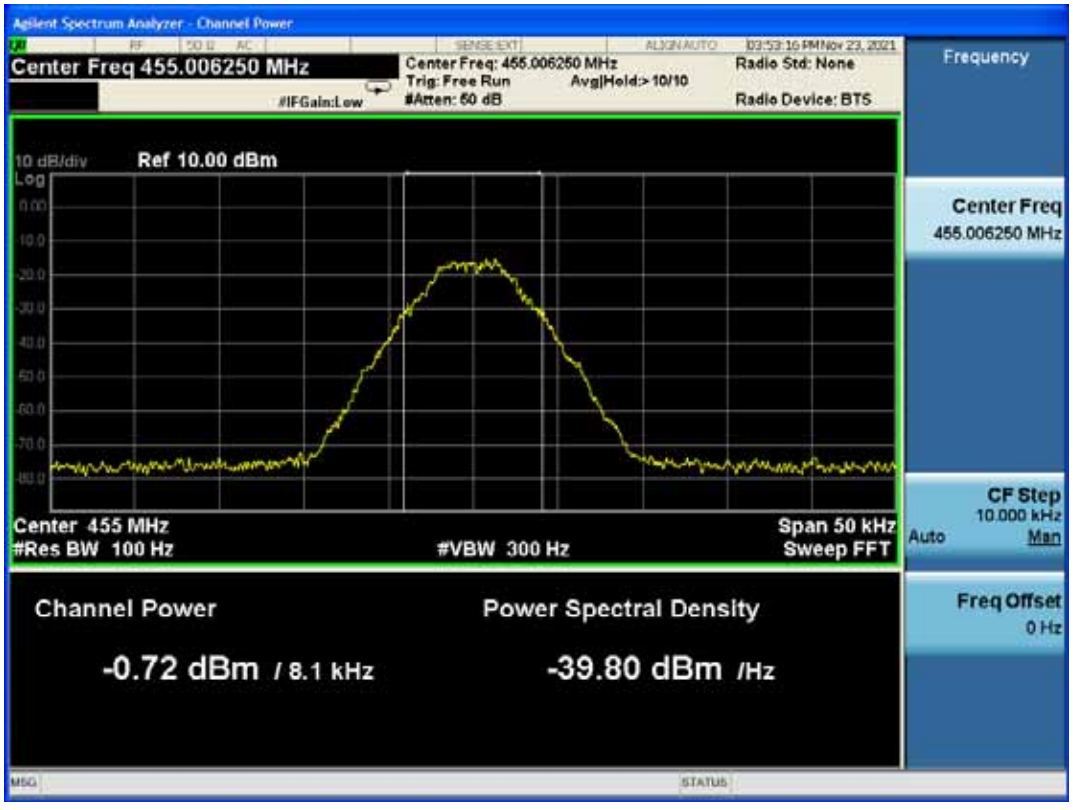


Middle Frequency: 479.0MHz



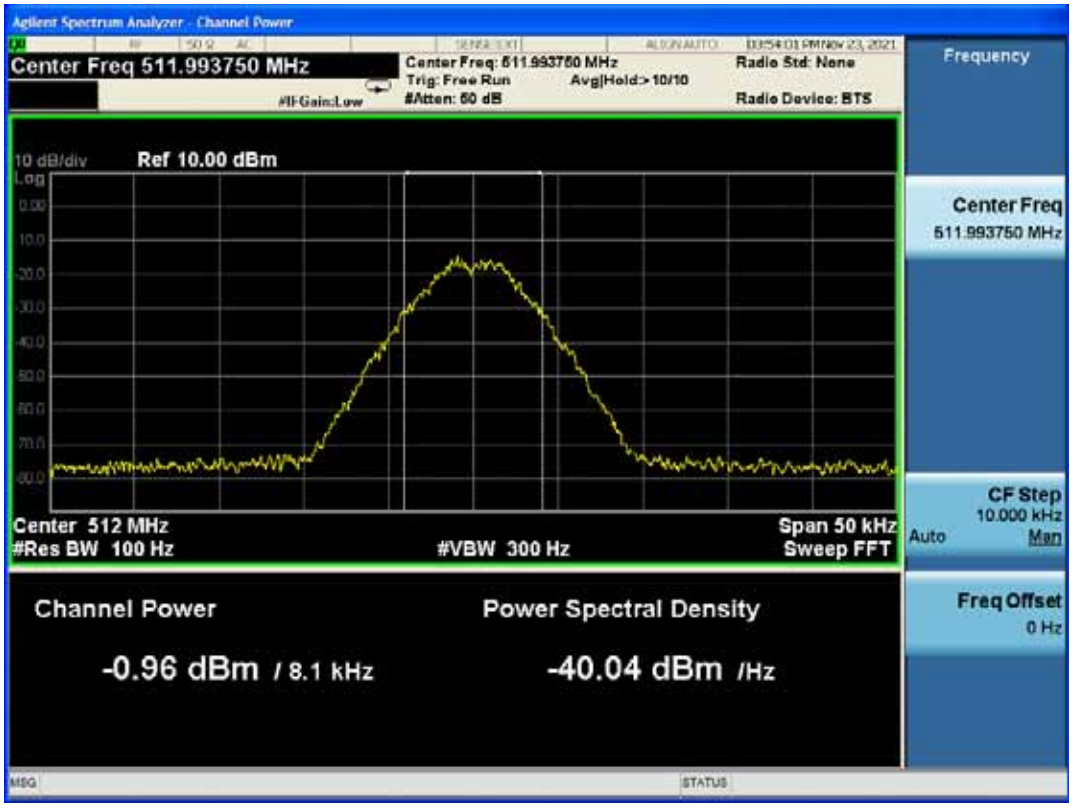
High Frequency: 508.99375MHz

10.2.3.1.2. Uplink



Low Frequency: 455.00625MHz

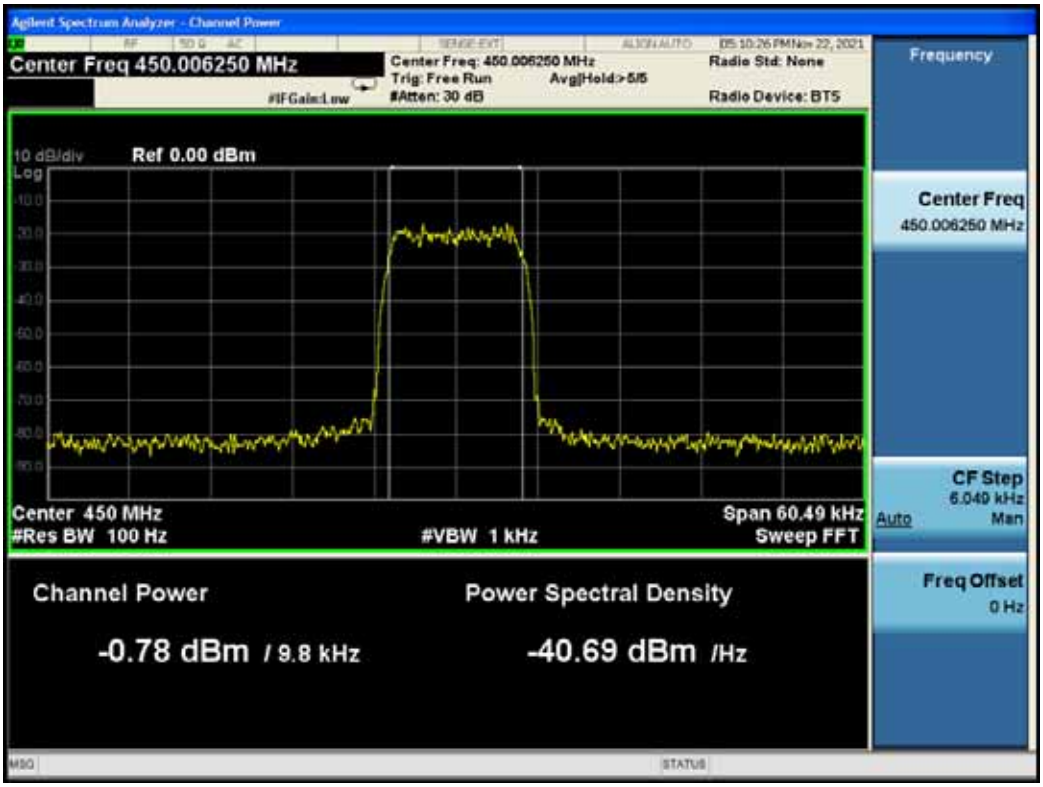
Middle Frequency: 484.0MHz



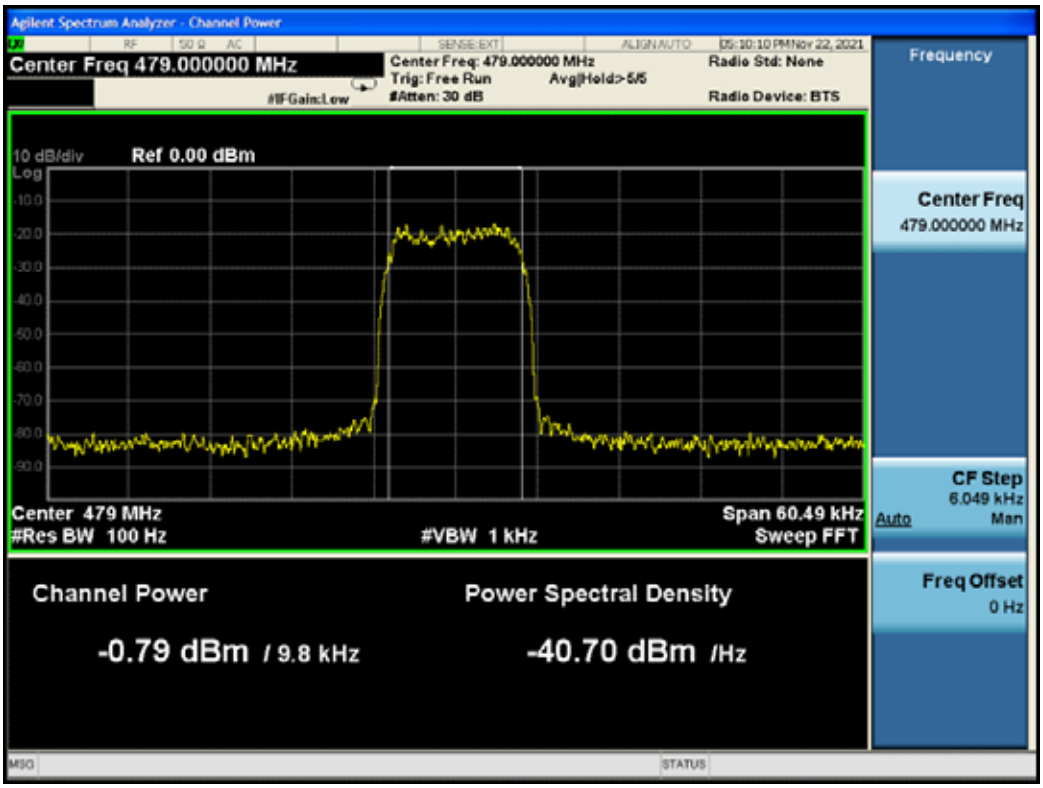
High Frequency: 511.99375MHz

10.2.3.2.P25 Phase II(H-DQPSK) mode

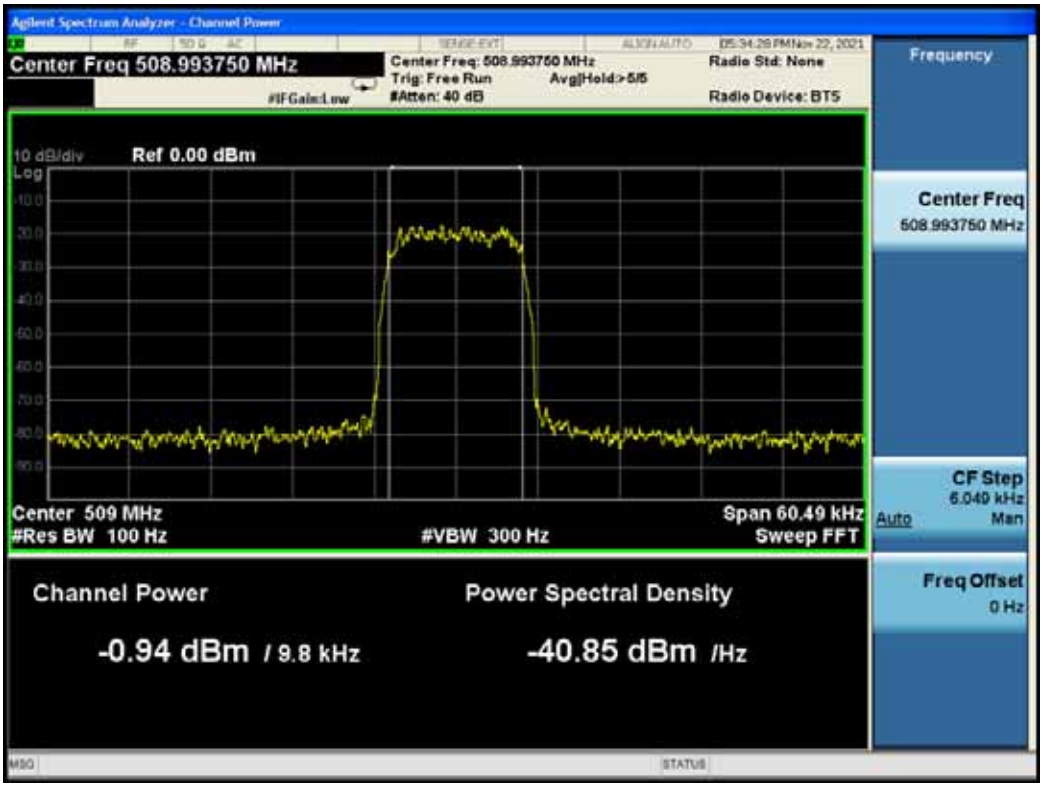
10.2.3.2.1. Downlink



Low Frequency: 450.00625MHz

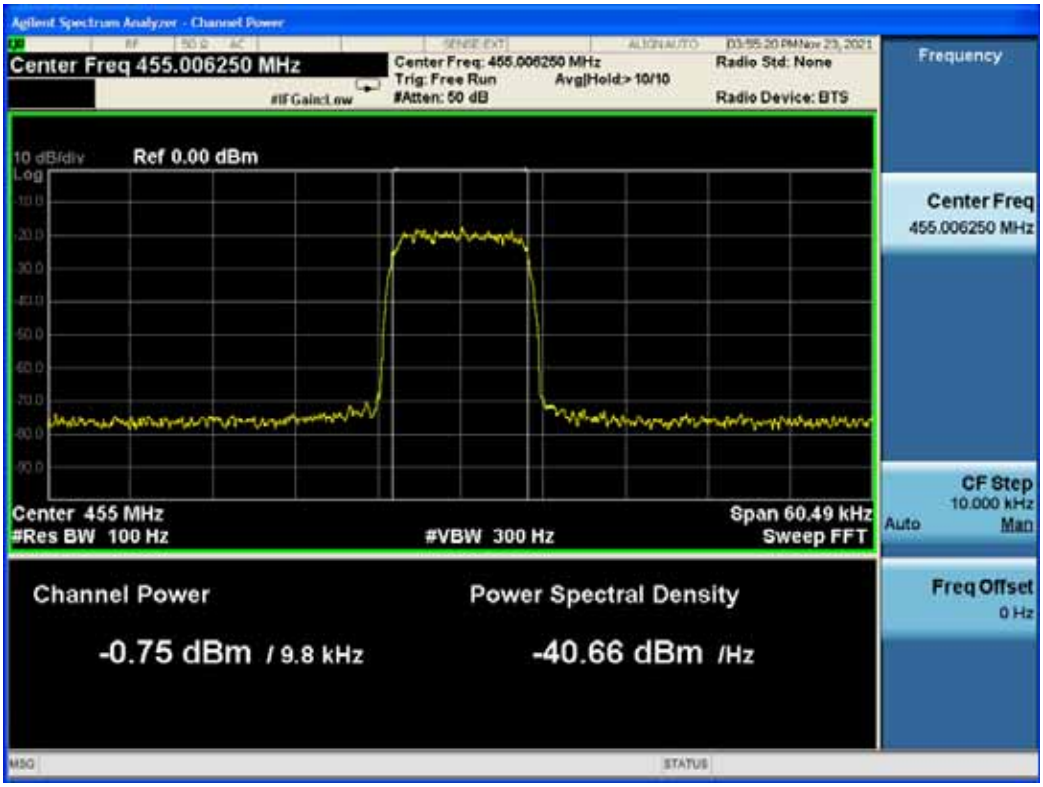


Middle Frequency: 479.0MHz

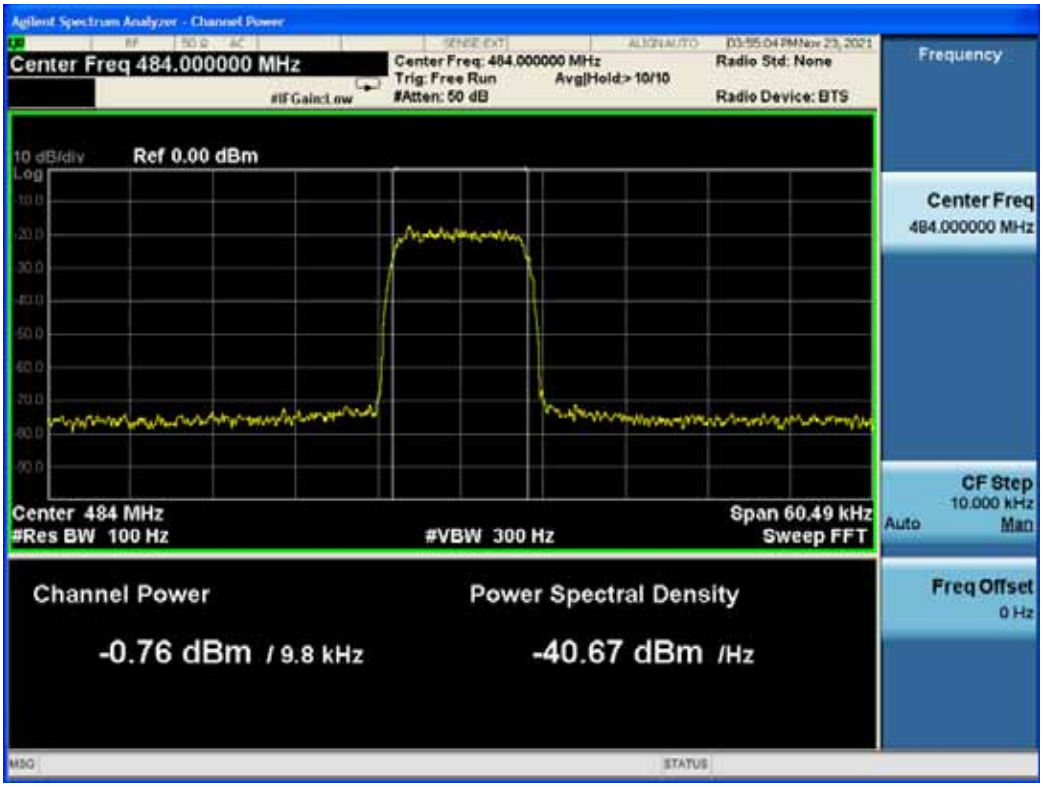


High Frequency: 508.99375MHz

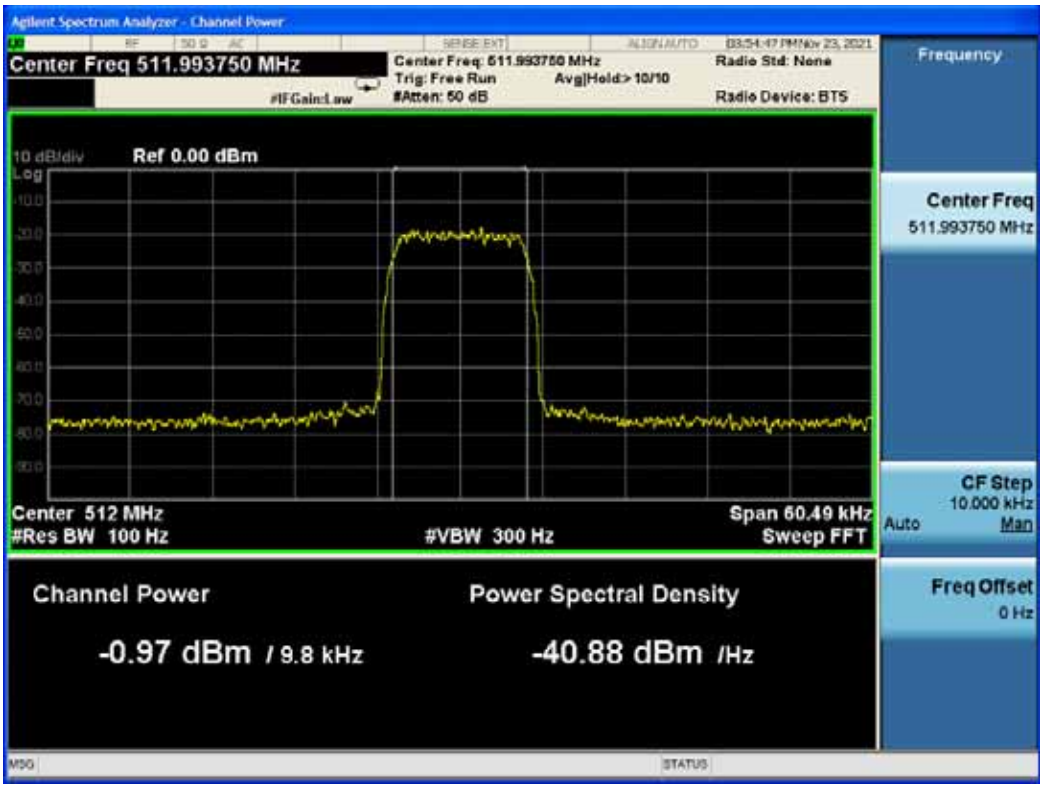
10.2.3.2.2. Uplink



Low Frequency: 455.00625MHz



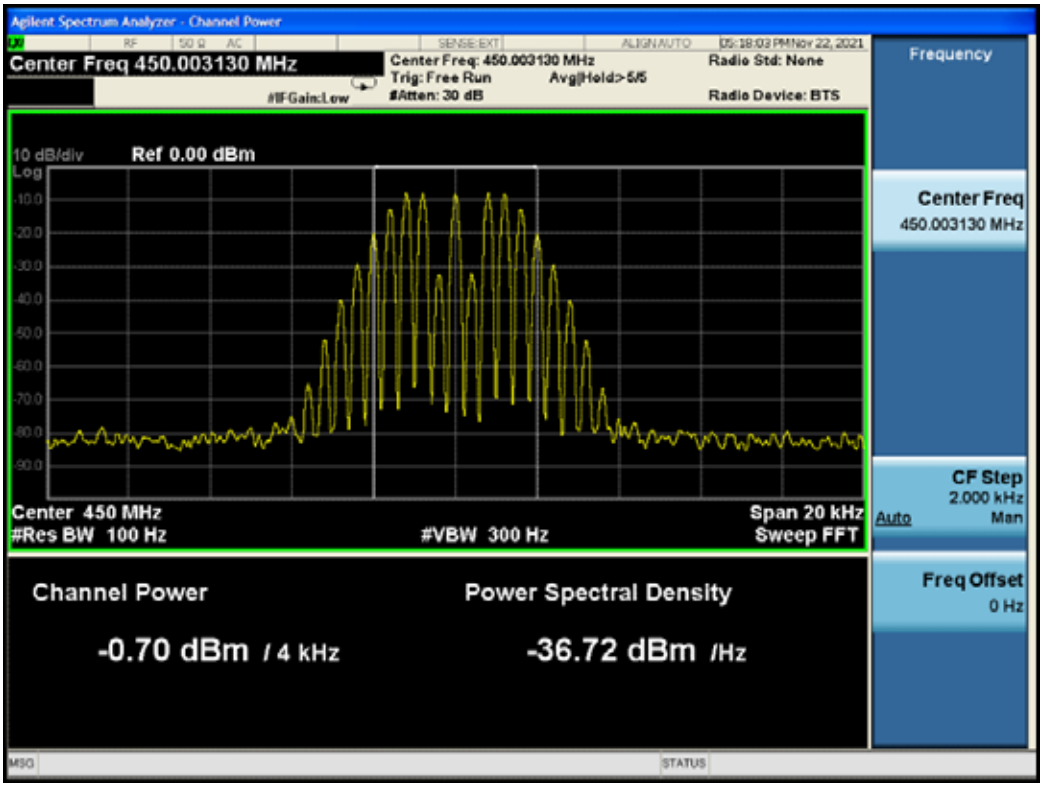
Middle Frequency: 484.0MHz



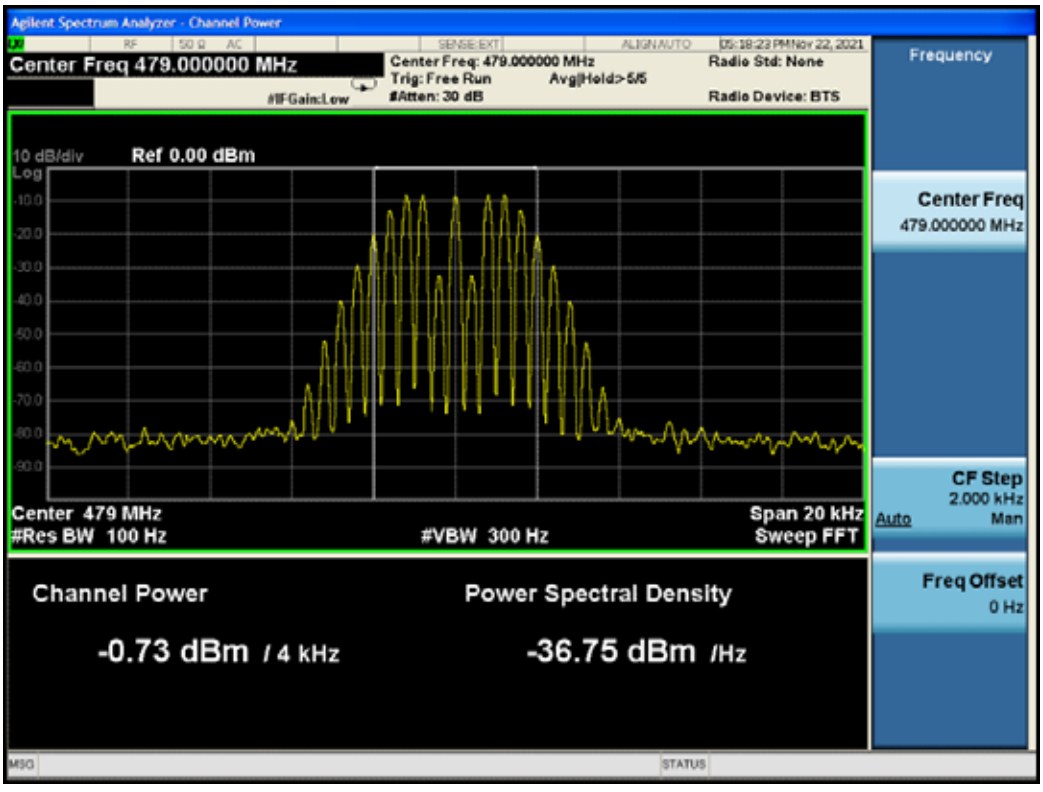
High Frequency: 511.99375MHz

10.2.3.3. Analog FM (6.25kHz)

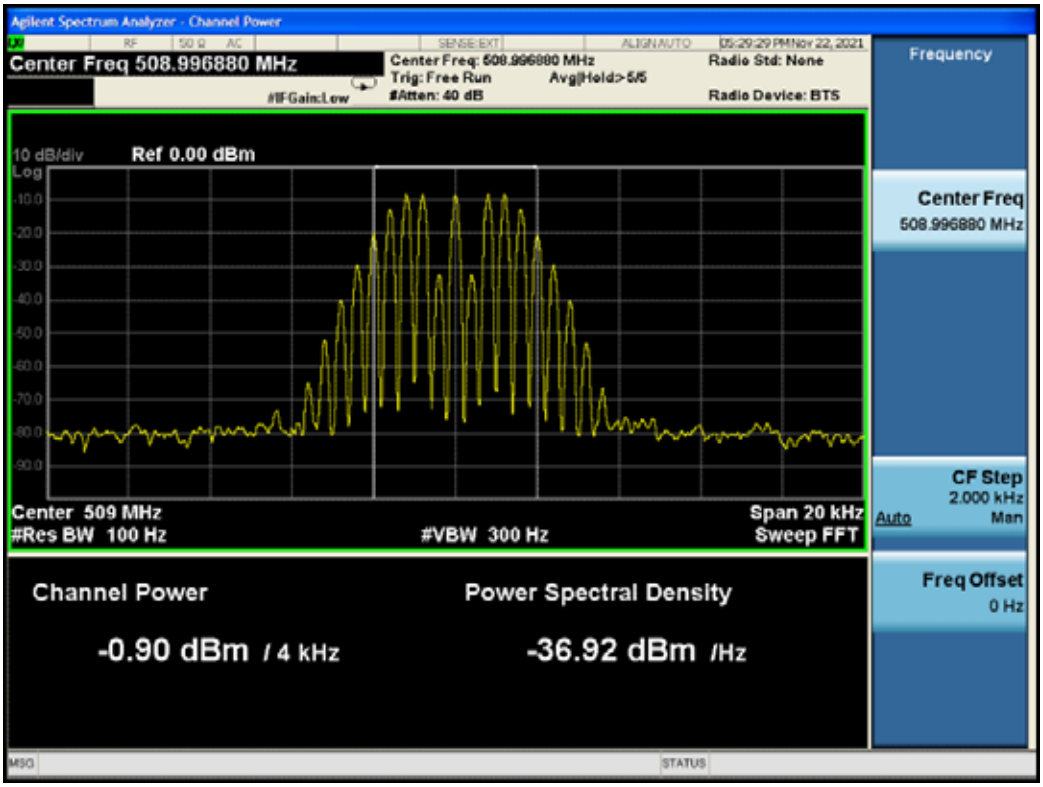
10.2.3.3.1. Downlink



Low Frequency: 450.00313MHz

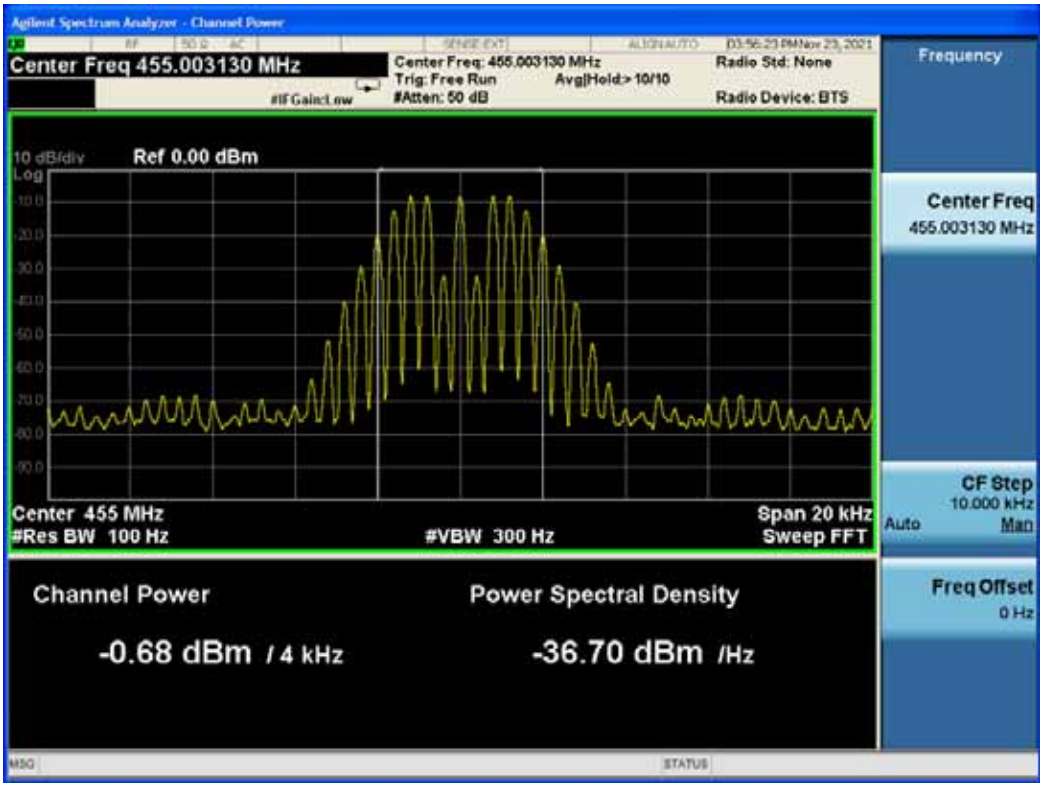


Middle Frequency: 479.0MHz

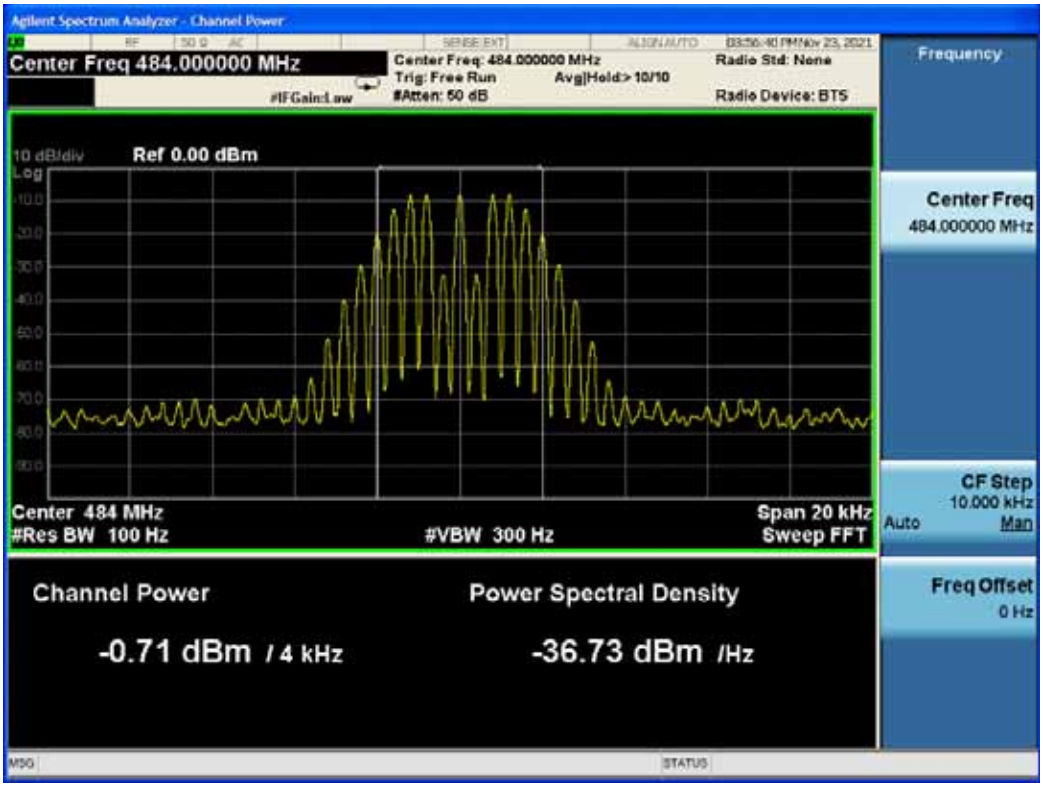


High Frequency: 508.99688MHz

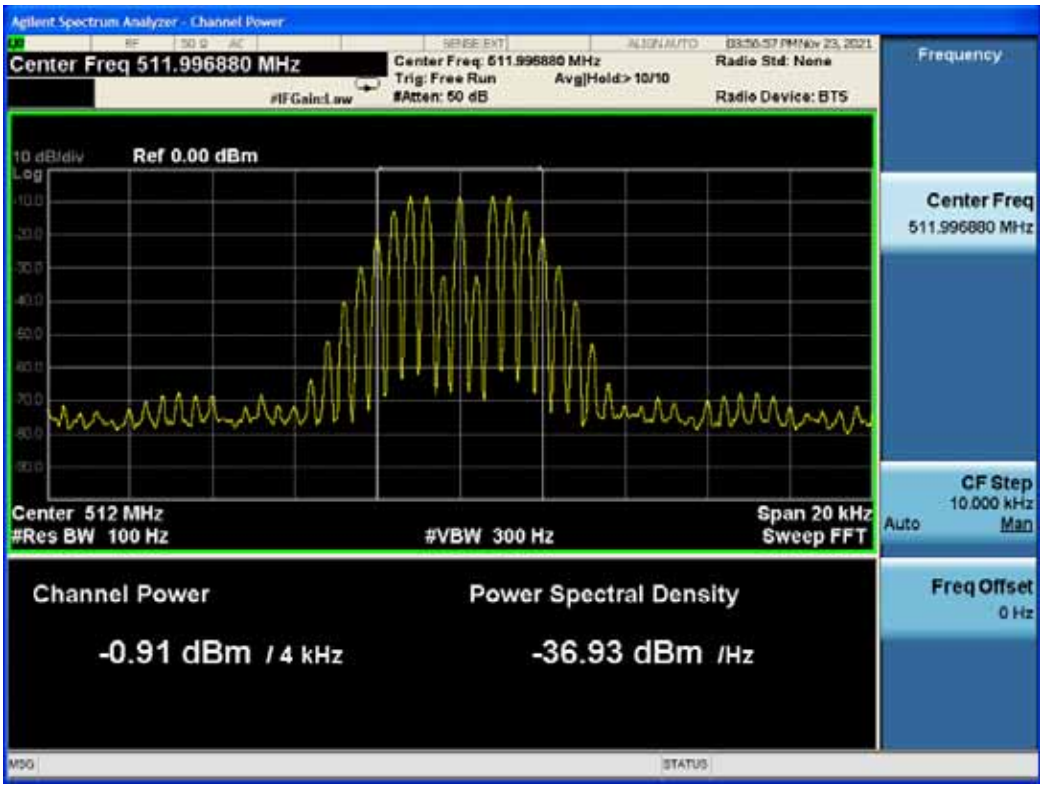
10.2.3.3.2. Uplink



Low Frequency: 455.00313MHz



Middle Frequency: 484.0MHz



High Frequency: 511.99688MHz